

ABSTRACT OF THE DISCLOSURE

A method for preparing a membrane to be assembled in a membrane, electrode assembly includes the step of swelling an ion-conducting membrane in a liquid containing at least one solvent or to an atmosphere containing the vapor phase of at least one solvent by controlling the content of the solvent in the ion-conducting membrane. A method for manufacturing a membrane electrode assembly using an ion conducting membrane includes the steps of: providing an ion-conducting membrane in a pre-swollen state; coating the ion-conducting membrane on both sides with an electrode layer to form a sandwich; and hot-pressing the sandwich to form an ion-conducting bonding of the layers of the sandwich. Furthermore, a membrane electrode assembly is disclosed including a hot pressed sandwich having an electrode layer, a ion-conducting membrane and again an electrode layer, thereby using the ion-conducting membrane in its pre-swollen status prior to the hot-pressing.